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REMARKS

After the foregoing amendment, claims 1, 3-12, and 15-20 are active in the present application. Claims 1, 11 and 15 have been amended, and claims 2, 13 and 14 have been cancelled. Reconsideration and allowance of the application, as amended, are respectfully requested.

The present invention is directed to a relay tracker circuit embedded on a load board that tracks relay usage in order to predict relay lifespan. The load board allows electrical connectivity of an Automated Test Equipment (ATE) to a Device Under Test (DUT). The load board also houses passive and active circuitry necessary for the DUT to operate as the tester performs electrical testing on the DUT. Testing of the DUT often requires switching of the relays multiple times (either by the same test or by different DUTS inserted into the load board). Eventually, due to all of the switching, the relay will cease to function reliably. That is, ~~the relay reaches the end of~~ its lifespan. The relay tracker circuit counts the number of relay clicks so that the relay lifespan can be predicted, which allows the relays to be switched with new relays before the relay fails. This is important because it can be troublesome to determine whether the relay on the load board is failing or the DUT is failing.

Three references were cited to in the Office Action to reject various ones of the claims. U.S. Patent No. 4,319,193 (Boccali et al.) is directed to a circuit that times relay operation (measures armature travel) to test the relay. That is, the relay is the DUT. Boccali et al. does not disclose counting of the number of relay

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actuators. U.S. Patent No. 5,028,873 (Koebe) discloses a circuit that tests relay actuation time, but does not count relay actuators. U.S. Patent No. 5,892,449 (Reid et al.) is directed to control system that turns circuit breakers on and off remotely and displays their status. Status information is also received and monitored by an expander circuit. However, this reference also does not count relay clicks in order to predict relay life span.

Applicants note with appreciation that claims 2 and 14 were indicated as allowable in the Office Action mailed March 31, 2005. In order to advance prosecution, independent claim 1 has been amended to include the subject matter of claim 2 and independent claim 11 has been amended to include the subject matter of claim 14 and intervening claim 13. Claim 15 has been amended to change its dependency from claim 13 (now cancelled) to claim 11.

In view of the foregoing amendments, claims 1, 2-12 and 15-20, are now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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